

REMARKS

In response to the objections set forth at the top of page 2 of the Office Action, Applicants have amended the claims in the manner suggested by the Examiner, except that the word "wherein" has not been included in Claim 5 at line 18. With regard to Claim 5 in particular, Applicants note that the word "wherein", which is appended at the end of the second paragraph of the body of the claims, applies to three following items, including "said catalyst contains...", "ratios of components..." and "said catalyst has...". Accordingly, insertion of "wherein" as suggested is believed to be redundant.

Claims 1, 3 and 5 have been rejected under 35 U.S.C. §112, first paragraph, based on the alleged failure of the specification to provide a written description of embodiments containing the language referred to in paragraphs a) through e) at the top of page 3 of the Office Action. In response to this ground of rejection, Applicants have amended the claims to eliminate the language referred to by the Examiner. At the same time, however, Applicants have also added new Claims 24-27, which recite that the catalyst according to the invention comprises a composite oxide formed between the at least one element selected from the first group (alkaline and alkaline earth metals) and the at least one element selected from the second group (Ti, Si and Zr). Support for this limitation is found in the specification at page 4, lines 9-12; page 14, line 3 through page 15, line 12 and page 27, lines 4-6. Moreover, new Claims 21 and 23 have been added, which recite that the second group in Claim 1 consists of Ti

and Zr. Support for this limitation is found in the specification at Table 6, page 30, lines 19-22. and embodiments 15 and 17 in particular. Finally, new Claims 28 and 29 have been added, which recite that the at least one element selected from the second group is Zr.

Claims 1-5 have been rejected under 35 U.S.C. §103(a) as unpatentable over Hanaoka et al (International Patent Document WO 97/47864). However, for the reasons set forth hereinafter, Applicants respectfully submit that all claims remaining of record in this application distinguish over Hanaoka et al, whether considered separately or in combination.

Hanaoka et al discloses a catalyst composition which contains noble metals (Rh, Pt, Pd). However, the temperature at which the desorbed CO volume reaches the maximum level varies, depending on the carrying amount of Pd, even if Pd is in fact contained therein, as indicated in Table 4 at page 30. According to the present invention, on the other hand, the exhaust cleaning catalyst has a CO desorption capacity that reaches at a maximum level at a temperature within the range of 200 to 220°C. during a heating test in which the temperature is raised at a rate of 5 to 10°C. per minute in a helium gas flow, as recited in Claim 1. Use of such a catalyst improves its anti-SO_x property. The Hanaoka et al reference is silent concerning such an exclusive heating test, and concerning the specific properties of the catalyst now recited in Claims 1 through 5 and 19 through 29.

In particular, Claim 1 has been amended to recite that the catalyst contains a combination of components comprising (i) at least one element selected from a first group consisting of alkaline and alkaline earth metals; (ii) Rh and Pt; (iii) at least one element selected from a second group consisting of Ti, Si and Zr; and (iv) a CO adsorbent component comprising at least one element selected from the group consisting of Pd, Ir and Ru. Independent Claim 5 is similar. In addition, new Claims 24-27 recite that the catalyst further comprises a composite oxide formed between the at least one element selected from the first group and the at least one element selected from the second group. Claims 25 and 26 further recite that the catalyst is formed by heat treatment at a temperature of at least 600°C., whereby the composite oxides referred to previously are formed.

In light of the foregoing remarks, this application should be in condition for allowance, and early passage of this case to issue is respectfully requested. If there are any questions regarding this amendment or the application in general, a telephone call to the undersigned would be appreciated since this should expedite the prosecution of the application for all concerned.

If necessary to effect a timely response, this paper should be considered as a petition for an Extension of Time sufficient to effect a timely response, and

please charge any deficiency in fees or credit any overpayments to Deposit Account No. 05-1323 (Docket #381NP/48511).

Respectfully submitted,



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